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205266

August 28, 1992

BY MESSENGER

Ms. Karen Martin
Community Relations Coordinator
U.S.E.P.A.
77 West Jackson Blvd.
Chicago, IL 60604

**RE: DeMert & Dougherty, Inc. Comments on U.S.
EPA's Proposed Remedial Action Plan for the
American Chemical Services Site, Griffith,
Indiana**

Dear Ms. Martin:

This letter and the attachments hereto constitute the comments and objections of DeMert & Dougherty, Inc. (DeMert) with respect to the United States Environmental Protection Agency's Proposed Plan for Remedial Action at the American Chemical Services (ACS Site) in Griffith, Indiana. Further, DeMert hereby incorporates and adopts the comments of the PRP Organization Group submitted to the Agency with respect to that same Proposed Remedial Plan. It is DeMert's understanding that all of these comments shall be incorporated into the Administrative Record, taken into consideration by the Agency in its development of a Record of Decision for the ACS Site, and shall be specifically addressed in publicly available responses.

After review of the Proposed Remedial Action Plan, it is apparent that the remedial proposal incorporated therein was selected based on several inaccurate factual assumptions about the ACS Site and in contravention of the selection criteria of the National Contingency Plan. Many of these issues are described in the attached detailed comments. DeMert has additionally provided a general listing to facilitate the Agency's review.

1. In adopting Remedial Alternative 6(b), the Agency did not comply with the National Contingency Plan mandate to select the most cost-effective alternative. In its own discussion of the various alternatives, the Agency notes that others provide the same level of environmental and health protectiveness as Alternative 6(b), yet involve less total costs. The Agency may not disregard these equivalent options in favor of a more expensive remedial technology under the strictures of the National Contingency Plan.
2. In addition, in selecting Alternative 6b, the Agency relies on an incomplete accounting of the costs, both short and long term, associated with implementation of this remedial option. For example, no cost is included in the EPA's figures for stabilization or RCRA capping at the Site. Other essential elements of the remedial system, and the identified contingent technologies, are also ignored in the Proposed Plan accounting. Such an inadequate evaluation of alternative costs does not comport with the requirements of the National Contingency Plan.
3. As the primary basis for selection of Low Temperature Thermal Treatment for the Offsite Containment Area wastes, the Agency relies on its assumption that that area of the ACS Site contains intact, full, buried drums of waste. However, based on all the available information from American Chemical Services, Inc., and the condition of the Site described in the Remedial Investigation and Feasibility Study, any buried drums are unlikely to be intact. ACS representatives have made statements indicating that prior to landfilling the drums in the Offsite Area, they were punctured and crushed, which resulted in the contents of the drums emptying into the ground. The U.S.EPA acknowledged during the public meeting on the Proposed Plan, that it does not know that any intact drums in fact exist in the Offsite Area. Therefore, this fundamental distinction used to justify the remedial technology for wastes in the Offsite Area in all likelihood does not even exist.
4. In addition, the Agency has failed to taken into consideration the effects of short term risks as required by the National Contingency Plan. Alternative 6(b), which requires excavation of contaminated soils and wastes that are then to be thermally treated, potentially exposes the workers excavating and implementing the Proposed Plan, as well as neighbors of the Site, to excessive contamination and risks. Other remedial alternatives avoid these significant

problems, yet the Agency did not include this factor in its remedial options assessment.

5. Further, the State of Indiana has enacted a statute banning the incineration of PCBs. When selecting a remedial action, the Agency is mandated by CERCLA/SARA and the NCP to choose a plan which complies with ARARs. Alternative #6b calls for the low temperature treatment, a form of incineration, of PCBs found at the Site. Incineration of the PCBs as called for in Alternative 6b would violate Indiana's prohibition against incinerating PCBs and therefore may not properly be selected.
6. The ecological assessment of the wetland areas on which the Agency relies to seek additional wetlands investigation as part of the Proposed Remedial Plan was based on overly conservative assumptions. For example, mink were used as the species subject to potential risk in the wetlands. However, EPA itself acknowledges that no mink have ever been observed in the area. The other assumptions incorporated into this Assessment are similarly unrealistic. This reliance on compounded, unrealistically conservative assumptions resulted in an improperly skewed assessment of potential risks and the appearance of a need for additional study.
7. The Agency has stated that it intends to include health based clean up standards in the Record of Decision for the ACS Site. Yet no standards have been made available for public review and comment to date. This is true, despite U.S.EPA's chapter-by-chapter review and approval of a Feasibility Study using technology-based standards. Any health based or other standards which the Agency may wish to incorporate in a ROD must first be subject to adequate and timely public comment and review.
8. Also with respect to standards, it is somewhat problematic to propose a specific technology such as low temperature thermal treatment, with an attendant cost figure, without any definition of the goals to be attained by that treatment. The FS relied on technology based standards and so was able to define the potential scope of treatment and possible costs. The Proposed Remedial Plan deviates from that analysis and purportedly looks to some yet to be determined health based level. Clearly, the Agency should know these levels before it decides that a specific technology will "work," and before it ascribes a comparative cost to that system.

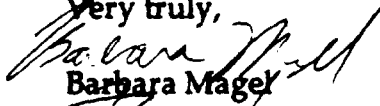
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9. The Proposed Plan selection of Alternative 6(b) is not consistent with the U.S.EPA's PCB Spill regulations or its Land Disposal Restriction requirements. Both of those program requirements must be properly factored in to both the selection of a treatment methodology and the costing thereof.
10. The Administrative Record provided by the U.S.EPA to the public is deficient in several important particulars. The Record does not include a statement of IDEM support for Alternative 6(b), a listing of ARARs from IDEM, all relevant information on the Ecological Assessment or documents supporting many of the Agency decisions underlying the selection of Alternative 6(b). Therefore, the public has been denied an adequate opportunity to participate in the remedial selection process as required by CERCLA/SARA and the NCP.
11. The community of Griffith, Indiana has already informed the agency that it does not want an incinerator in its town. Yet the Agency ignores that opposition in selecting Alternative 6(b). Such disregard does not comport with NCP requirements.

The above listing presents some of the most fundamental issues noted in the ACS Site Proposed Remedial Plan. As stated above, a more detailed review is contained in the Comments attached hereto. In addition, DeMert & Dougherty, Inc. joins in the comments submitted by PRP Organization Group on behalf of its membership.

DeMert & Dougherty, Inc. believes that it would be constructive for a meeting between the PRP Organization Group and the Agency to be scheduled at the earliest convenient time to discuss issues relating to the Proposed Plan. It is DeMert's understanding that the Group has been seeking such a meeting with the U.S.EPA over the last several weeks so that technical differences can be resolved without undue delay. DeMert believes that such a meeting would be mutually beneficial and should be scheduled.

Very truly,


Barbara Magel


A. Bruce White

BAM:sam
enclosure
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COMMENTS OF DEMERT & DOUGHERTY, INC. ON U.S.EPA'S PROPOSED PLAN FOR REMEDIATION OF THE ACS SITE, GRIFFITH, INDIANA

Introduction

While Demert and Dougherty, Inc. agrees with many aspects of the remediation activities set forth in the U.S.EPA's Proposed Plan, there are several significant elements with which Demert disagrees. Those points were outlined in the cover letter to these comments, and are set out in more detail below and in the comments of the Potentially Responsible Parties (PRP) Group of which Demert is a member. Some of the comments relate to the Agency's failure to adhere to the National Contingency Plan in selecting portions of its Proposed Plan remedy; others are more general comments respecting the procedures followed in developing and publicizing the Plan.

As noted above, Demert does not take issue with many of the activities included within the Proposed Plan. For example, the proposed groundwater remedial system is consistent with the proposal of the ACS Site PRP Group, as is the use of insitu soil vapor extraction for the soils and Onsite Area wastes. It is with the Agency's advocacy of low temperature incineration for Offsite Area wastes, and its conditional, restricted approach to the use of the selected vapor extraction technology, that Demert finds its most significant disagreement with the Agency procedures and conclusions. However, as the comments below note, there are several more general procedural and substantive issues relating to the Proposed Plan as well.

General Comments

Cleanup Objectives

One of the baseline problems with the Agency's Proposed Plan assertion that it intends to include health-based cleanup criteria in the ROD relates to the failure of the Agency to provide any notice of that decision. As the Agency is well aware, certain of the alleged potentially responsible parties have worked closely with U.S.EPA over the past year and a half in completing a Feasibility Study incorporating technology-based cleanup objectives. The Agency reviewed that Study on a chapter-by-chapter basis during its development. At no time did the Agency indicate it was considering rejecting the technology-based approach reflected in that Feasibility Study in favor of some other standard. The Agency has, in fact, approved the final Feasibility Study for the ACS Site which was developed under their oversight.

It was not until June of this year, that the Agency gave the alleged potentially responsible parties any notice that it intended to use health-based, not technology-based levels. Since that time, the parties have repeatedly tried to meet with the Agency to discuss the basis for that decision, and its implications for site remediation methods and costs. The Agency has consistently refused to meet. In addition, the Administrative Record provided to the public is devoid of any information explaining this change in Agency position. It is clearly inappropriate for the Agency to propose such a fundamental and significant modification in approach without notice or explanation to the public.

The U.S.EPA's proposal to require the application of health-based cleanup standards for the ACS Site has obvious cost-effectiveness implications in the remedial selection process. This decision represents a departure from the Agency approved Feasibility Study analysis; a departure which is not documented or explained in the Administrative Record. The shift to health based criteria will impact the Feasibility Study analyses of costs and effectiveness for all of the technologies reviewed therein.

The implications of that proposed standard requirement are even more fundamentally problematic even apart from NCP compliance issues. If the U.S.EPA is determined to apply health-based levels for all detected constituents as a measure of vapor extraction success, then the vapor extraction system will unavoidably fail for both soils and wastes.

If the U.S.EPA follows through on its proposal to impose health-based criteria for all constituents then it is really saying that vapor extraction can not be acceptable. The cost of alternative technologies, such as low-temperature incineration and slurry bioremediation when applied site-wide is significantly higher than the remedial costs ascribed to Alternative 6(b). If that is the remedy the Agency is truly advocating then the Proposed Plan must be modified to reflect that reality and a new public comment period must be provided.

The issue of health-based criteria also raises a question as to the propriety of the Agency's choice of acceptable risk range. In the Proposed Plan, the Agency indicates that a 1×10^{-6} risk level, based on residential use of the ACS property would be used in developing levels. Yet the NCP states that when there is a reasonable likelihood a site will remain industrial, an industrial exposure scenario and the 1×10^{-4} level should be used. Here, the property is used for ongoing chemical production, it is located along a railroad right of way and adjacent to an active municipal landfill and non-developable wetland areas; and it will be subject to institutional controls. To assume that this property would be developed for residential use is inappropriate under Agency regulations and guidance.¹ Again the Proposed Plan should be revised to indicate that the 1×10^{-4} level will be used rather than the 1×10^{-6} residential level if health-based standards are to be imposed.

¹ Both the NCP and U.S.EPA's own Risk Assessment Guidance (RAGS, U.S.EPA, December 1989) recognize that soils at Industrial Facilities may be addressed through treatment and containment to a 1×10^{-4} risk level if there is a reasonable certainty that the Site will remain industrial. That reasonable certainty clearly exists as to the ACS Site.

Land Disposal Restrictions

In its Proposed Plan, the Agency concludes that use of a treatability variance from the land disposal restrictions would not be appropriate for the low temperature incineration unit's residuals. That conclusion is based on two incorrect presumptions. The first fallacy is that the land disposal restrictions would apply to the residuals from the proposed low temperature incinerator or some alternative onsite treatment system. According to U.S.EPA's own guidance documents, materials which are excavated, treated and then returned to the excavation or a contiguous contaminated area are not subject to the land disposal restrictions. [See Superfund LDR Guide #5 entitled *"Determining When Land Disposal Restrictions Are Applicable to CERCLA Response Actions"* (July, 1989)]. Under the scenario in the Proposed Plan, waste will be excavated, incinerated and returned to the excavation or another contiguous portion of the Offsite Area. Therefore, the land disposal restrictions would not even be applicable, and no consideration of a treatability variance is required.

In any case, the issue of the appropriateness of a treatability variance for the incinerator residue has not been properly evaluated. As part of the Proposed Plan, the Agency indicates that since the incinerator will not reach the as yet undefined health-based criteria for the Site, the treatability variance standards would not be protective of health and the environment at the ACS Site. However, that conclusion is not defensible given the Agency's acknowledgment of the fact that it has not yet defined health-based standards for use at this Site. Not only has the U.S.EPA not defined its own health based standards to date, the Agency has also yet to determine how effective the low temperature incinerator will be in reducing contaminant levels in the residues. Given the current state of the U.S.EPA's information and decision making, it is impossible for the Agency to have evaluated either the levels of contaminants in the residuals in relation to potential risks or to some yet to be developed health-based standards.

PCB Spill Policy

The U.S.EPA's Proposed Plan mandates that PCBs will be remediated to a ten parts per million (ppm) level. Further, the Plan states that any PCBs remaining at concentrations less than 10 ppm would require a ten inch soil cover. That proposed Agency position is not consistent with U.S.EPA's own regulatory PCB spill cleanup requirements. 40 CFR 761.125 specifies that for restricted access areas (non-substations) which includes industrial areas such as the ACS Site, the cleanup level for soils is 25 ppm. In addition, the PCB regulations do not require a ten inch soil cover over residual PCBs at that level. Encapsulation of contaminated soils is also an acceptable option for such areas according to regulation. Neither the Proposed Plan nor the Administrative Record provide any basis for the Agency's adoption of a more stringent approach at the ACS Site. Given the basically immobile character of PCBs in soils, the containment features of the site-wide remediation, and the industrial nature of the Site, there is no reason to deviate from the generally applicable spill requirements here.

Administrative Record/Public Participation Issues

In reviewing the Administrative Record made available to the public with respect to the Proposed Plan, it becomes obvious that there are several key elements not included within the documentation. For example, the Administrative Record provided does not include any statement from the State as to its advocacy of the U.S.EPA proposed remedial alternative. During the public meeting, the U.S.EPA indicated that the State supported Alternative 6(b).² However, the Record is devoid of any statement to that effect from the Indiana agency. In fact, the only document provided to the alleged potentially responsible parties to date indicates that the Indiana Department of Environmental Management supports Alternative 5. The U.S.EPA's *Final Guidance on*

² During the July 7, 1992, public meeting, the IDEM representative stated that a listing of ARARs had been provided to the U.S.EPA. That statement was apparently incorrect since no such listing is included in the available Record. The public was seemingly misinformed.

Administrative Records for Selecting CERCLA Response Actions (OSWER Directive No. 9833.3A-1), provides that the Record must include documentation of the State's position on the remedial selection.

Further, the Administrative Record made available in this instance does not include any identification of ARARs by the Indiana Department of Environmental Management. Both the National Contingency Plan and the Agency's own guidance require that a listing of ARARs be provided by the State in a timely manner so that State requirements can be incorporated into the remedial selection process. Based on this Administrative Record, it appears that no ARARs were submitted by the State and therefore, no State ARARs were taken into account in the selection of Alternative 6(b). That failure to obtain an identification of ARARs from Indiana may explain the selection of low temperature incineration for PCB contaminated materials in the face of an explicit State statutory ban on such activities.

The provided Administrative Record is also incomplete with respect to the health-based standards the Agency has determined will be applied in this instance. The only document included within the Record to date is an identification by Roy F. Weston, U.S.EPA's contractor, of "Preliminary Remediation Goals". No explanatory information is provided, nor is any evidence of Agency consideration, acceptance or rejection of those standards included. Further no numerical remediation goals were included in the Proposed Plan provided for public comment. Given the Agency's stated intention to impose health-based standards through the Record of Decision in this matter, this failure to include any documentation of the decision not to use technology-based standards as provided in the Agency approved Feasibility Study or the development of health based criteria is significant.

The Administrative Record is equally incomplete with respect to the Ecological Assessment relied upon by the U.S.EPA in including further wetlands investigation in its Proposed Plan. As the Agency is aware, the alleged potentially responsible parties

conducted an Ecological Assessment in accordance with Agency comments and guidance. The Agency rejected that Assessment and adopted one of its own. Yet, the original Ecological Assessments are not included within the Record nor are they mentioned in the Proposed Plan..

The U.S.EPA's own guidance on administrative records provides that the record must include the documents considered by the Agency in selecting a remedial approach , even if such documents were finally rejected, so that the record provides an adequate basis for public participation in the selection process. In this instance, the Administrative Record does not include documentation of State support for the selected alternative, a listing of State ARARs, the decision to reject technology-based and pursue health-based standards, or the Ecological Assessment performed by the alleged potentially responsible parties under Agency guidance. Clearly, this Administrative Record must be viewed as incomplete. Therefore, the Agency must supplement the Record in accordance with its own regulatory and guidance requirements, and make the complete Record available to the public for review and comment before proceeding with finalizing a remedial selection for the ACS Site. Only by following such a procedure will the Agency have provided the public with an statutorily adequate opportunity to participate in the remedial selection for the ACS Site.

National Contingency Plan Criteria Comments

When selecting a remedy for a contaminated Site pursuant to the National Contingency Plan, (NCP) the U.S.EPA reviews all of the alternatives presented in the FS. Each alternative is assessed against the nine evaluation criteria which are:

1. Overall protection of human health and the environment;
2. Compliance with applicable or relevant and appropriate requirements ("ARARs");
3. Long-term effectiveness and permanence;
4. Reduction of toxicity, mobility, or volume;

5. Short-term effectiveness;
6. Implementability;
7. Cost;
- 8., State acceptance; and
9. Community acceptance.

Applying the above nine criteria to both Alternative 5, the option supported by the alleged PRP's, and at least initially, by the State of Indiana, and to Alternative 6(b) with modifications as outlined in U.S.EPA's Proposed Remedial Action Plan, it is apparent that Alternative 5 meets the NCP criteria at least as well as Alternative 6(b), and for less cost. In fact, U.S.EPA acknowledges this conclusion in it's Proposed Remedial Plan.

When Alternative 6(b) is examined in relation to these nine NCP screening criteria it quickly becomes evident that this alternative is not the most appropriate of those considered in the Feasibility Study.³ As outlined in the following comments, the U.S.EPA proposed Alternative suffers from shortcomings as to at least its cost-effectiveness, compliance with ARAR's, and community acceptance. In addition a real question exists as to the State's support of Alternative 6(b) over Alternative 5.

Specific NCP Criteria

- ***Compliance with ARARs*** - As the Agency is aware, Indiana has enacted a statutory ban on the incineration of polychlorinated biphenyls (PCBs). (P.L. 83-1992) That Act states that no PCBs may be incinerated within the State for at least the next several years, perhaps indefinitely. An incinerator is defined as an "engineered apparatus designed for the burning of solid waste under the effect of controls on

³ Given the modifications made to Alternative 6(b) as it appeared on the Feasibility Study, there is a question as to whether it is appropriate to consider the Proposed Remedial Plan an alternative that was analyzed through the Feasibility Study process. Certainly significant elements of Proposed Plan 6(b) were not addressed under the Feasibility Study option identified with that number and letter.

temperature, retention time, air and other combustion factors" (IC 13-7-1-13.5).⁴ Clearly a low temperature thermal unit must be viewed as an incinerator under Indiana law and therefore is subject to the statutory PCB incineration ban.

In direct contravention of this applicable State law, the Agency has proposed to incinerate PCB contaminated soils and wastes at the ACS Site. Neither CERCLA/SARA or the National Contingency Plan provide the Agency with the authority to override the substantive requirements of applicable State law in selecting a remedial technology. The proposal of low temperature incineration of PCBs is not in accord with CERCLA/SARA or ARARs and therefore may not properly be finalized.

Further, as stated in the section on Administrative Record, the State has apparently failed to provide the U.S.EPA with a listing of ARARs. Therefore, neither the Agency or the public is in a position to say that proposed Alternative 6(b) complies with ARARs or that ARARs were properly considered in its selection as required by CERCLA/SARA and the NCP.

- *Long Term Effectiveness* - One of the primary National Contingency Plan criteria relates to the long term effectiveness of a remedial technology. In evaluating the long-term effectiveness of low temperature thermal treatment and insitu soil vapor extraction here, the Agency has adopted a somewhat inconsistent approach. The

⁴ During the July 7, 1992 public meeting, the representative of IDEM stated that a low temperature unit is not an incinerator. That statement is in direct contradiction to statements by IDEM's own hazardous waste permitting staff who have consistently identified low temperature thermal units for treatment of hydrocarbon contaminated soils as incinerators for permitting purposes.

Agency recognizes that insitu soil vapor extraction may be a viable permanent treatment technology for soils and certain Onsite Area waste materials as to both volatiles and semi-volatiles, and so proposes pilot testing of that technology for these materials. However, with regard to the low temperature thermal option, the Agency overlooks the questions which exist as to its efficacy, and instead unqualifiedly specifies that technology for Offsite Area wastes, as well as other materials for which vapor extraction does not work. Under the National Contingency Plan, the Agency must scrutinize each of these technologies retained for detailed screening to the same extent.

In this instance, the Agency has attributed a high level of effectiveness to low temperature incineration, which, given the conditions at the ACS Site, is not justified. Low Temperature Thermal Treatment or incineration was developed for use on, and is most effective for, volatile hydrocarbon contaminated soils. While the contaminants of concern at the ACS Site do contain volatiles, they also include significant concentrations of semi-volatiles and metals. In addition much of the material U.S.EPA proposes to treat in the incinerator is liquid or sludge, not soils. Low temperature incineration was not designed, nor may it, address this more complex contaminant mix found at this Site. Yet, in assessing this treatment technology's long term effectiveness, the Agency basically overlooks these shortcomings by saying supplemental measures will be taken, and then asserts that the technology is a proven method of addressing the

ACS Site conditions. In contrast to the Agency's approach to vapor extraction, no testing of this incineration technology is proposed.⁵

The Agency rejects insitu soil vapor extraction for certain wastes and proposes testing for soils, in part because the U.S.EPA believes this technology has also not been demonstrated to work on the concentrations and types of compounds present at the ACS Site. However, as noted in the PRP Group comments, insitu vapor extraction has repeatedly been adopted as a ROD remedy for complex contaminant mixtures of volatiles and semi-volatiles at National Priority List sites. In the approach the Agency has taken toward soil vapor extraction at the ACS Site in its Proposed Plan, the Region has deviated from this well-established remedial precedent. No explanation for this divergence from Agency past practice is provided in the Plan or the Administrative Record.

For the Onsite Area wastes, the Agency proposes that a pilot test be performed to determine whether the vapor extraction treatment would be effective as to the buried wastes. Such testing for the complex waste mix is the appropriate approach to take in a situation such as that facing everyone at the ACS Site where numerous compounds have been intermingled to create a complex mixture for treatment.⁶ Given its limited application to date, low temperature incineration should be viewed in the same light as to the contaminants found at the

⁵ In the U.S.EPA approved Final Feasibility Study at page 4-39, pilot testing of low temperature thermal treatment for soils and wastes is recommended prior to that technology used at the ACS Site.

⁶ As noted above, with respect to soils, vapor extraction has been recognized as a proven technology by the Agency and so no testing should be required. (See also PRP Group Comments)

Site; a possible technology for which pilot testing may be appropriate if more cost-effective methods prove to be unavailable.

Another discrepancy in the way in which the Agency has evaluated technologies for this Site concerns the wastes and vapor extraction. In the Proposed Plan, U.S.EPA concluded that vapor extraction and low temperature incineration may both be viable treatment technologies for the buried wastes. The U.S.EPA's asserted reason for rejecting vapor extraction for the Offsite Area wastes is that there are buried intact drums and a tank trailer that may exist in that Area of the Site. However, the Agency itself acknowledged during the public meeting on July 7, 1992, that it does not know whether there are intact containers in that Area or not.

Given the available information about the American Chemical Services practices of crushing or puncturing any buried drums and the passage of time since the reported burial took place, it is, in fact, unlikely that any intact containers still exist. Therefore, the Agency's reported rationale for asserting that vapor extraction can not be used for the Offsite Area wastes is without factual basis. The Agency should allow the pilot test results to be developed for both the Onsite and Offsite Areas.

Further, given the questions as to the efficacy of low temperature incineration for the materials at the ACS Site, it would be most appropriate to allow other technologies to be tested should vapor extraction prove to be ineffective. There are other possible treatment methods, such as slurry bioremediation which may in fact be more appropriate for this Site, and which may enable the parties to avoid the additional costs of stabilization and RCRA capping that the

incomplete low temperature incineration technology could require. All of these technologies should be reviewed should vapor extraction not work for the waste materials.

- *Short Term Effectiveness* - In proposing Alternative 6(b), the Agency addresses short term risks in a very perfunctory manner. The Agency merely states that engineering controls will be developed to address any problems that may arise through excavation of the buried materials. However, such a dismissal of these potentially significant risks is not in keeping with the National Contingency Plan requirements or the needs of the Griffith community. The portions of the Site slated for excavation under U.S.EPA's Proposed Plan contain a mixture of many different types of compounds, some of which may be incompatible. Based on information provided by American Chemical Services, Inc. the materials were buried sometime in the mid-to late seventies and have remained undisturbed since that time.

Opening the burial areas to remove materials for treatment carries with it serious potential for the mixing of incompatible materials, releases of volatiles to the air, and explosion. These risks may arise instantaneously and are therefore not readily addressable through engineering controls. Attempting to address these conditions through construction of an enclosure entails risks as well. While acknowledging that the risks exist, the Agency does not view them as a factor to be considered in selecting a remedial alternative for the Site. That U.S.EPA attitude does not comport with the National Contingency Plan.

Under the National Contingency Plan criteria, it is more appropriate to test a remedy, such as insitu vapor extraction first, and

only if it does not work, to adopt a more intrusive, riskier, remedial method. The Agency does in fact adopt this concept for the Onsite Area waste and then rejects it for the Offsite Area, based on a supposition that intact containers exist in the later portion of the Site. As explained above, that is not apparently the case, and therefore, any Agency objection to testing vapor extraction in the Offsite Area must disappear.

- ***Cost Effectiveness Evaluation*** - The National Contingency Plan requires the U.S.EPA to select a remedial alternative which is cost effective as well as protective of human health and the environment. In this instance, by proposing modified Alternative 6(b), the Agency has deviated from that regulatory requirement. In the Proposed Plan, Alternative 6(b) is estimated to cost \$4.8 to \$13.8 million dollars more than Alternative 5 which offers the same level of overall protectiveness, and fewer short-term risks. The State of Indiana also recognized the preferability of Alternative 5 on the basis of cost. (See letter dated December 6, 1991 from IDEM to U.S.EPA's RPM. in the Administrative Record) Clearly, given the recognized equivalency of the options' protectiveness, the Agency may not properly reject the less costly remedial alternative in favor of the more expensive.

This cost related flaw in the Agency's proposal of Alternative 6(b) is exacerbated when the elements of the cost estimate developed used for purposes of the selection process are examined. The Agency has neglected to include a cost figure for the engineering controls to address the significant short term risks, or the stabilization or capping of treatment residuals. Instead the Agency merely states that controls will be implemented, and if the low temperature incinerator does not

adequately treat the metals, which it will not since it is not designed to address metals, stabilization may be necessary. In addition, the Agency has stated that a RCRA compliant cap may be required. Again the significant costs associated with that measure has not been reflected in the Alternative 6(b) total.⁷ These are each significant cost factors which have been ignored in ascribing a cost estimate to Alternative 6(b). As each appropriate amount is added to the total estimate, the difference between Alternative 6(b) and Alternative 5 increases further.

It is also difficult to undertake a meaningful cost evaluation of any of the remedial alternatives proposed since the Agency has indicated it intends to develop health-based clean-up standards for the Site, but has not yet done so. The use of such standards represents a departure from the Feasibility Study which looked to technology-based goals in evaluating remedial options.⁸ If the Agency intends to proceed with health-based, as opposed to technology-based standards, it has put the cart before the horse in selecting a specific technology and ascribing a cost figure before clean-up requirements are defined.

- **Community Acceptance** - Another of the National Contingency Plan screening criteria which must be considered by the Agency in the

⁷ The cost estimate for Alternative 6(b) is lifted from the Feasibility Study. However, as the Agency stated in its Proposed Plan, it has modified Alternative 6(b) in several respects as part of its proposed remedial scheme. Many of the resultant increased costs have been ignored in the remedial alternative cost comparison performed by the Agency as noted in the text. In addition to these noted above, by deviating from the PCB Spill Cleanup regulatory standards, the Agency has included a greater volume of soil as PCB contaminated for treatment and stabilization purposes. These costs are not reflected in the Proposed Plan figures.

⁸ It would appear to be axiomatic that it is almost impossible to say a technology will be an "effective" remedy if a determination of what a remedy is to achieve has not been made.

remedial selection process is the community acceptance of the proposed remedy. In this instance, while the Feasibility Study recognizes the public opposition which will be faced with respect to onsite incineration, the Proposed Plan ignores this factor in advocating Alternative 6(b). The Town of Griffith has stated that it does not want an incinerator in its town. Absolutely no weight was given to this factor in selecting the remediation scheme in the Proposed Plan.

Detailed Textual Comments on Proposed Remedial Plan

1. *Site Background* - On page 2 of the Proposed Remedial Plan, the U.S.EPA states that the Kapica/Pazmey Drum Reclamation site was in operation from 1951 on. However, based on sworn statements of Mr. Kapica, he did not begin to operate at the property now included within the ACS Site until about 1961. This factual error in the Proposed Plan should be corrected.
2. *Site Background* - On page 3 of the Proposed Plan the Agency reviews a portion of the American Chemical Sites' hazardous waste facility background. It is noted that this facility lost its interim status in 1990 due to its inability to adequately demonstrate financial assurance. However, no mention is made of the closure or corrective action requirements which are clearly applicable to the American Chemical Services' Facility. Both U.S.EPA and Indiana's Department of Environmental Management are legally obligated to require adequate closure, and corrective action as indicated by site conditions at the American Chemical Services, Inc. facility. The interrelationship of these required activities to any proposed remediation should be addressed.

3. *Phases II, III and STI Results* - On page 6 of the Proposed Plan, the Agency acknowledges that the Onsite Area may contain "randomly buried drums" (estimated at 3200). The Agency also proposes that insitu vapor extraction be tested for the wastes in this portion of the Site. As discussed previously, this is indicative of the fact that there is no reliable factual basis for distinguishing between waste conditions in the Onsite and Offsite Areas in terms of container burial. Vapor extraction should properly be pilot tested for wastes from both areas.
4. *Phases II, III and STI Results* - On page 8, the Agency notes that upper aquifer private residential wells were not sampled during the Remedial Investigation. While that statement is true, it is misleading. The Agency must also note that no private wells screened in the upper aquifer were identified in the ACS Site Area after a review of all available well installation records by the U.S.EPA and private parties.
5. *Ecological Risks* - On page 10, the Agency discusses its Ecological Assessment for the ACS Site. As the PRP's have indicated in the past, they believe that Assessment to have been improperly conservative. For example, mink were used as a target species, despite the fact that mink have never been observed in the area. Further, constituents were used in the Assessment in their purer forms instead of in the less hazardous salt compounds which were actually detected at the Site. The result of the Agency's use of conservative, unrealistic assumption on top of conservative assumption has rendered their Assessment meaningless.
6. *Overall Protection* - On page 25, the Agency discusses its views of the long-term protectiveness of various remedial alternatives. With respect to buried waste materials, the Agency states that residuals

would be left in the ground after treatment under Alternatives 2, 4 and 5. However, the same is true for Alternative 6(b). The Agency is aware that low temperature incineration will not address some SVOCs and metals for example. Those materials will be placed back in the ground and, depending on residual concentrations, possibly stabilized. Therefore it is incorrect to imply that Alternative 6(b) will not leave residuals. This same issue arises on page 28 of the Proposed Plan as well.

7. *Implementability* - On page 26, the Agency identifies low temperature incineration as a "proven" technology for the materials at the ACS Site. That is incorrect. As discussed in more detail in the comments of the PRP Group, low temperature incineration has not been demonstrated to be an effective treatment for the complex mixture of contaminants identified here. Therefore, it can not be evaluated as a "proven" technology for remedial selection purposes.
8. *Short-Term Effectiveness* - On page 27, in discussing the remedial options which entail excavation of wastes and soils, only Alternatives 7 and 8 are identified. Again, the Agency has failed to properly assess Alternative 6(b). That remedial scheme clearly requires excavation of wastes and possibly soils. Therefore the risks associated with excavation must be considered in evaluating the appropriateness of this proposed Alternative in relation to other options.

In this same section, the Agency mistakenly asserts that Alternative 6(b) would entail a shorter exposure to site workers and nearby residents because it would involve excavation of buried wastes only. However Alternative 6(b) leaves open the possibility that soils will also require excavation should vapor extraction not meet some yet to

be defined standard. This statement also fails to state that it is the wastes which contain the highest concentrations of chemicals, and therefore account for the vast majority of the short term excavation emission, exposure and explosion risks. The Agency's cavalier dismissal of these potential risks is inappropriate.

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